

Math 090 Worksheet: Mixed Numbers

NAME:

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Complete the following problems. Simplify all answers completely.

Fractions:

1. What value of x makes the fractions equivalent?

a. $\frac{x}{24} = \frac{3}{4}$

$x = 18$

b. $\frac{1}{5} = \frac{x}{20}$

$x = 4$

2. Simplify.

a. $\frac{40}{12}$

$\frac{10}{3} = 3\frac{1}{3}$

b. $\frac{56}{7}$

8

3. What is $\frac{1}{6}$ of 36?

$\frac{1}{6} \cdot 36 = 6$

4. Write each improper fraction as a mixed number.

a. $\frac{13}{6}$

$= 2\frac{1}{6}$

b. $\frac{24}{7}$

$= 3\frac{3}{7}$

c. $\frac{34}{9}$

$= 3\frac{7}{9}$

5. Write each mixed number as an improper fraction.

a. $3\frac{2}{5}$

$\frac{17}{5}$

b. $2\frac{1}{8}$

$\frac{17}{8}$

c. $1\frac{1}{7}$

$\frac{8}{7}$

6. Least common denominator: Find the least common denominator. You do NOT have to finish the addition/subtraction problem.

a. $\frac{3}{4} - \frac{5}{6}$ L.C.D 12

b. $\frac{1}{4} - \frac{3}{14}$ L.C.D 28

c. $\frac{2}{9} - \frac{5}{12}$ L.C.D 36

7. Mixed Numbers: Convert the mixed numbers to improper fractions. Then complete the problem. Write your answer as a mixed number.

a. $6\frac{3}{7} + 3\frac{6}{7} = \frac{45}{7} + \frac{27}{7} = \frac{72}{7} = 10\frac{2}{7}$

b. $8\frac{2}{5} - 5\frac{4}{5} = \frac{42}{5} - \frac{29}{5} = \frac{13}{5} = 2\frac{3}{5}$

c. $9\frac{1}{5} - 2\frac{1}{2} = \frac{46}{5} - \frac{5}{2} = \frac{92}{10} - \frac{25}{10} = \frac{67}{10} = 6\frac{7}{10}$

d. $4\frac{1}{3} + 2\frac{3}{4} = \frac{13}{3} + \frac{11}{4} = \frac{52}{12} + \frac{33}{12} = \frac{85}{12} = 7\frac{1}{12}$

e. $2\frac{3}{8} \cdot \frac{2}{3} = \frac{19}{8} \cdot \frac{2}{3} = \frac{19}{12} = 1\frac{7}{12}$

f. $3\frac{2}{3} \cdot \frac{3}{7} = \frac{11}{3} \cdot \frac{3}{7} = \frac{11}{7} = 1\frac{4}{7}$

g. $1\frac{1}{9} \div 4\frac{2}{3} = \frac{10}{9} \div \frac{14}{3} = \frac{10}{9} \cdot \frac{3}{14} = \frac{5}{21}$

h. $4\frac{1}{2} \div 8\frac{2}{5} = \frac{9}{2} \div \frac{42}{5} = \frac{9}{2} \cdot \frac{5}{42} = \frac{15}{28}$

Fraction Drill

Name: Key

You may NOT use a calculator. PUT A BOX AROUND YOUR ANSWER.

$$1. \frac{3}{5} + \frac{7}{5} = \frac{10}{5} = \boxed{2}$$

$$2. \frac{1}{3} + \frac{5}{9} = \frac{3}{9} + \frac{5}{9} = \boxed{\frac{8}{9}}$$

$$3. -\frac{2}{5} + \frac{3}{10} = -\frac{4}{10} + \frac{3}{10} = \boxed{-\frac{1}{10}}$$

$$4. \frac{9}{2} + 4 = \frac{9}{2} + \frac{8}{2} = \frac{17}{2} = \boxed{8\frac{1}{2}}$$

$$5. \frac{12}{5} - \frac{21}{10} = \frac{24}{10} - \frac{21}{10} = \boxed{\frac{3}{10}}$$

$$6. \frac{8}{3} - \frac{10}{2} = \frac{16}{6} - \frac{30}{6} = -\frac{14}{6} = -\frac{7}{3} = \boxed{-1\frac{1}{3}}$$

$$7. -\frac{1}{2} - \frac{13}{2} = -\frac{14}{2} = \boxed{-7}$$

$$8. 5 - \frac{4}{9} = \frac{45}{9} - \frac{4}{9} = \frac{41}{9} = \boxed{4\frac{5}{9}}$$

$$9. \frac{6}{11} \cdot -\frac{3}{7} = \boxed{-\frac{18}{77}}$$

$$10. \frac{-14}{7} \cdot \frac{9}{4} = -\frac{9}{2} = \boxed{-4\frac{1}{2}}$$

$$11. \frac{1}{6} \cdot -12 = -\frac{12}{6} = \boxed{-2}$$

$$12. \frac{5}{21} \div \frac{3}{7} = \frac{5}{\cancel{21}^3} \cdot \frac{7}{3} = \boxed{\frac{5}{9}}$$

$$13. \frac{12}{7} \div \frac{6}{28} = \frac{12}{7} \cdot \frac{28}{\cancel{6}^4} = \boxed{8}$$

$$14. \frac{40}{3} \div \frac{10}{-8} = \frac{40}{3} \cdot \frac{-8}{10} = -\frac{32}{3} = \boxed{-10\frac{2}{3}}$$

$$15. \frac{8}{15} \div \frac{8}{5} = \frac{\cancel{8}}{15} \cdot \frac{5}{\cancel{8}} = \boxed{\frac{1}{3}}$$

Negative Numbers Drill

NAME:

You may NOT use a calculator.

Addition/Subtraction

1. $-1+3= 2$
2. $-7-(-2)= -5$
3. $9+(-12)= -3$
4. $8-(-2)= 10$
5. $-10+(-4)= -14$
6. $-(2+5)= -7$
7. $-6-8= -14$
8. $12-15= -3$
9. $14-(-2)= 16$
10. $-4+2= -2$

Multiplication

11. $(-7)(-4)= 28$
12. $8(-2)= -16$
13. $(-5)(3)= -15$
14. $(12)(11)= 132$
15. $(-5)(-2)= 10$

Division

16. $\frac{-14}{2}= -7$
17. $\frac{-8}{-16}= \frac{1}{2}$
18. $-\left(\frac{10}{-2}\right)= 5$
19. $-\frac{144}{12}= -12$
20. $\frac{15}{-45}= -\frac{1}{3}$